

REMARKS

Claim 1-6 and 9, as amended, and new claims 13-14 appear in this application for the Examiner's review and consideration. Claims 7, 8 and 10-12 have been cancelled.

The allowance of claim 1 is noted with appreciation.

Claims 2, and 7-12 were rejected under 35 U.S.C. 112, second paragraph, as allegedly being indefinite. As noted, applicants have cancelled claims 7, 8 and 10-12 and now traverse this rejection as to claims 2 and 9.

First of all, office action notes that it is not clear what steps define the process. The mandatory step for the formation of compound (I) or (I') is recited in claim 2. No other steps are required. This fact is supported by Examples 1 and 2, which represent the best mode of realization of the invention.

For example, concerning claim 2, as far as a reaction mentioned under a) is performed and that such reaction is performed in a solvent satisfying the requirement mentioned under b), the inevitable result is the formation of a phase comprising a majority of (I) and a phase comprising a majority of (I'). One of said phases will be in the form of a solid (precipitate) and the other in the form of a solution. Therefore, compounds (I) and (I') will be directly obtained as two separated entities, without the need on any additional mandatory step to obtain (I) or (I') as separated compounds.

Under US patent law, a claim needs only to be clear for a person skilled in the art and does not need to comprise all specific or particular experimental conditions which belong to the general knowledge of a skilled artisan or that can be determined by routine experiments. The optical resolution of racemates by the formation of diastereomeric salts having different solubilities is a reaction for which general principles and conditions are well known so that they do not need to be recited in the claims. The novel feature of the present process is the choice of the salt which must be formed in order to achieve an effective optical resolution. This essential parameter of the process of claim 2 is unambiguously defined therein. The exact choice of the solvent, the temperature, as well as other parameters mentioned in the office action will depend on many factors, such as the desired efficiency of the process (purity), the stability of the reagents as well as economical aspects, and are readily determinable by a skilled artisan.

Once it is known that an optically active enantiomer of (2-hydroxy-1-methyl-2-phenylethyl)methyl has to be used as resolving agent, standard routine experiments, requiring only ordinary skill and reasonable efforts, are sufficient to assess if a solvent is embraced by the expression "a solvent wherein the compounds of formula (I) and (I') have

different solubilities", as well as the exact conditions which are required to carry out the process of the claimed invention in order to obtain the product in the desired degree of purity. As the Examiner can appreciate, claim 2 not only is clear and definite for a person skilled in the art but it cannot be defined more precisely without restricting in an undue manner its scope. Indeed, a claim 2 containing a mere list of solvents, temperature and acids would be non-exhaustive and probably less clear than as presently drafted.

The same considerations are applicable to the expression "an acid having a pKa below 5", which is a clear teaching and disclosure to a person of ordinary skill in the art. In other words, the solvents, the acids and indirectly also the temperature ranges, are properly defined in functional terms since they are readily ascertainable by the skilled artisan by routine experimentation if not by knowledge. In order to assess if a specific solvent or acid is embraced by the present claims, standard routine experiments are more than sufficient.

The applicant's response to the objections raised about claim 9 are essentially the same as those presented above as to the rejection of claim 2. Claim 9 was alleged to be indefinite because it is unclear how lactonization of compounds 1 and 1" is achieved. Lactonization of the compound happens during the thermal treatment, therefore all steps are mentioned: i.e. a first step wherein a treatment with an acid transform (I) or (I') in a free alcohol-acid (in claim 1 X would be = H) and then a second step (thermal treatment) wherein the free alcohol-acid is converted into a lactone.

The office action also alleges deficiencies in claims 10-12. Although these claims have been cancelled, new claims 13 and 14 have been presented to recite preferred processes and to avoid the rejections of the canceled claims. As to these claims, applicant again emphasizes that a claim needs only to be clear for a person skilled in the art and does not need to comprise all specific or particular experimental conditions which belong to the general knowledge of a skilled artisan or that can be determined by routine experiments. The present specification teaches that the hydrolysis may be performed according to any current method described in the prior art, e.g., as described by Koga et al. in Tetrahedron Asymmetry, (1998), 9, 3819 or by Goro et al. in EP 550,889. In general, the hydrolysis is performed by treating (\pm)-sclareolide with an alkaline base, such as NaOH, KOH or LiOH, in an alcoholic solvent, such as methanol or ethanol, to obtain the corresponding alkaline salt of (2RS)-hydroxy-acid. If desired, the alkaline salt may be transformed into (2RS)-hydroxy-acid by treating the former with an acid, preferably a strong inorganic acid such as HCl, HBr, H₂SO₄, HNaSO₄, HKSO₄, HNO₃, H₃PO₄, HPF₆, HBF₄, HClO₄, para-toluenesulphonic acid (TsOH), benzenesulphonic acid, methanesulphonic acid or the similar. These teachings

enable and support the hydrolyzing step of claim 13 so that no further clarification appears to be needed.

Applicant also re-emphasizes that a claim does not need to comprise all specific or particular experimental conditions which belong to the general knowledge of a skilled artisan or that can be determined by routine experiments. As noted above, the conditions that favor optical resolution are well known in the art and need no further comment here. Claim 14 has been written to clarify what is treated. As the invention relates to the optical resolution of a particular compound rather than the specific method used for the resolution, this claim should not be rejected.

In view of the foregoing, it is believed that the section 112 rejection has been overcome and should be withdrawn, so that the entire application is now in condition for allowance, early notification of such would be appreciated. Should the Examiner not agree, a personal or telephonic interview is respectfully requested to discuss any remaining issues and expedite the eventual allowance of the claims. Please call the undersigned to expedite the allowance of all the claims in this application.

Respectfully submitted,

Date

1/25/05

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